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## The Level Of Compliance With High Blood Pressure Check In Elderly People With Hypertension

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### ABSTRACT

**Introduction:** Hypertension is a non-communicable disease (NCD) which is a severe health problem. This disease is categorized as a silent disease because sufferers do not know they have hypertension before having their blood pressure checked. Checking blood pressure in the elderly, especially in blood pressure sufferers, is one of the routine treatments for preventing the severity of hypertension. And Compliance with blood pressure checks is an important factor in controlling the severity of hypertension. So it is important to check the level of compliance in the elderly.

**Methods:** This research uses an observational approach with data presentation using quantitative descriptives. Checking blood pressure in elderly people with hypertension using a Tensimeter. The number of subjects in this study was 40 elderly people who suffered from hypertension. The level of compliance will be checked using a likert scale. The research was conducted in Semangkak village, Klaten district.

**Results:** The level of compliance in the poor category was 40%, in the fair category was 42.5 %, and in the high category was 17.5 %.

**Conclusion:** Based on the results it shows that the level of compliance of elderly people with hypertension in carrying out blood pressure checks is on average in the medium and low categories

**Keywords:** Compliance, Hypertension, Elderly

## INTRODUCTION

Elderly people who suffer from Covid-19 have a high death rate compared to younger patients (Liu et al, 2020). This is because the ageing process is accompanied by various

psychological, social and environmental vulnerabilities so these vulnerabilities carry the risk of multiple types of infections and decreased immune responses. Apart from that, the elderly also have a high risk of suffering from comorbidities and there has been an

increase in hospitalisations which are at risk of contracting infections during the COVID-19 pandemic (Banerjee, 2020). The elderly is defined as someone who has reached the age of 65 years or more (Orimo et al., 2006). Meanwhile, according to Law of the Republic of Indonesia No. 13 of 1998 states that what is meant by elderly (elderly) is someone whose age has reached 60 years or more (UU RI, 1998). The cause of the high death rate in the elderly is due to serious illnesses previously suffered by the patient such as dyspnea, lymphocytopenia, cardiovascular disease, chronic obstructive pulmonary disease and acute respiratory distress syndrome (Wang et al, 2020).

Research conducted by Fang, Karakiulakis & Roth (2020) stated that hypertension and diabetes mellitus were the most common comorbid diseases that caused death in patients infected with COVID-19 with case presentations of 23.7% and 16.2% respectively. Hypertension sufferers experience an increase in blood pressure which causes ongoing symptoms in a target organ in the body. This can cause more serious damage, for example, stroke (which occurs in the brain and causes quite high mortality), coronary heart disease (damage to the blood vessels of the heart), and left ventricular hypertrophy (which occurs in the heart muscle) (Syahrini et al.,2012). Hypertension is defined as a systolic blood pressure of 140 mmHg or more and a diastolic blood pressure of 90 mmHg or more. Hypertension is a public health problem in both developed and developing countries. According to Topp and Frost (2016), in 2030, it is predicted that cardiovascular disease will be the cause of death in 41% of people of productive age in the developing world.

Hypertension is a non-communicable disease (NCD) which is a very serious health problem. This disease is categorized as a silent disease because sufferers do not know they have hypertension before having their blood pressure checked (Purnomo, 2009 in Novian, 2013). Hypertension generally occurs without symptoms (asymptomatic). Most people don't feel anything if their blood pressure is far above normal. This can go on for years until finally, the sufferer (who does not feel suffering) falls into an emergency condition (Hartono, 2011).

Hypertension is a non-communicable disease which is an important health problem throughout the world because of its high prevalence of 22% in the age group  $\geq 18$  years in 2019 and continues to increase, as well as its relationship with cardiovascular disease, stroke, retinopathy and kidney disease (Yonata1 dan Arif Satria Putra Pratama2, 2016). Hypertension is also the third biggest risk factor for premature death (Pradana Tedjasukmana, 2013). The Third National Health and Nutrition Examination Survey revealed that hypertension can increase the risk of coronary heart disease by 12% and increase the risk of stroke by 24%. Hypertension is still a big challenge in Indonesia (Kementrian Kesehatan RI, 2019). Hypertension is a condition that is often found in primary healthcare (Malara , et al., 2014).

Hypertension as a comorbidity of COVID-19 causes greater deaths than those who do not suffer from hypertension, this is because it was found that the risk factor for individuals with hypertension to die is 1.37 times higher than without hypertension. This is based on the fact that individuals with hypertension tend to have a higher number of 3 ACE2 receptors, causing the coronavirus to spread more easily in the body (Drew & Adisasmita, 2020). Riskesdas 2018 explains that the majority of hypertension sufferers in Indonesia are over 65 years old and the majority of DM sufferers are over 60 years old (Riskesdas, 2018).

The importance of checking blood pressure in the elderly, especially in blood pressure sufferers, is one of the routine treatments in preventing the severity of hypertension. So compliance with examinations is very important to achieve success in treating hypertension cases. When patient compliance is carried out well, it can have a good effect on blood pressure and can prevent complications. This is because compliance is a determining factor in success in dealing with hypertension cases. So patients who are not compliant will become a serious problem for patients and professional health workers. Non-compliance will impact the severity of other disorders in hypertension. Hypertension itself is a disease that is experienced by many people with no significant symptoms and can cause other dangerous

diseases if not treated immediately (Al Rasyid, et al., 2022).

Based on direct observation, it was found that hypertension had the highest cases in the Semangkak Village area, Klaten City. Apart from that, it was found that the knowledge that the public has is still very minimal about hypertension and its prevention, the majority of people do not know their blood pressure, and some residents do not know that they are currently hypertensive, seeing this condition it is deemed necessary to carry out early detection activities and current prevention of hypertension. Hypertension is a disease that has a high mortality rate and a high prevalence in Semangkak village, Klaten city. Hypertension can occur at ages over 20 years. In Semangkak village, most of the people suffer from hypertension, more than 50% of people with hypertension are over 60 years old. The high incidence of hypertension in Semangkak village is a reference or basis for the importance of conducting health education there. With this incident, it is important to carry out blood pressure regularly. This study aimed to determine the level of compliance of elderly people with hypertension regarding routine blood pressure checks. This activity was carried out to increase community knowledge and behaviour regarding preventing and treating hypertension in Semangkak Village, Klaten City.

## METHOD

The method used in this research uses an observational approach with data presentation using quantitative descriptives. This research only looks at the description of the phenomenon that occurs in the case of the elderly in Semangkak village, Klaten district. In this study, we will present the results of a description of the facts that occurred intending to explain the level of compliance with blood pressure checks in elderly people with hypertension, checking blood pressure in elderly people with hypertension using a Tensimeter. The number of subjects in this study was 40 elderly people who suffered from hypertension. The subjects of this research will be given a questionnaire to determine the level of compliance using a Likert scale (Panjaitan, 2020).

## RESULTS

This research was conducted in Semangkak village, where 40 elderly respondents were present. It focuses on elderly people with hypertension, intending to determine their compliance with routine blood pressure checks.

**Table 1. Characteristics of elderly**

Characteristics	n	(%)
<b>Age</b>		
<b>45-59</b>	15	37.5
<b>60-74</b>	20	50
<b>75-90</b>	4	10
<b>&gt;90</b>	1	2.5
<b>Total</b>	40	100
<b>gender</b>		
<b>man</b>	15	37.5
<b>woman</b>	25	62.5
<b>Total</b>	40	100
<b>Long-suffering from hypertension</b>		
<b>&lt;6 month</b>	8	20
<b>&gt;6 month</b>	32	80
<b>Total</b>	40	100

Based on table. 1 shows that the characteristics of respondents based on age are mostly 60-74 years old, 20 (50%) elderly people, and the fewest respondents with age criteria >90 years old, namely 1 (2.5%) elderly people. Regarding the characteristics of respondents based on gender, the majority were women, namely 25 (62.5%) elderly people and the fewest according to the female criteria were 15 (37.5%) elderly people. Meanwhile, the characteristics of the elderly based on the length of time they have suffered from hypertension are the highest in the criteria >6 months, namely 32 (80%) elderly people and the least in the criteria <6 months, namely 8 (20%) elderly people.

**Table 2. Elderly's level of compliance with blood pressure checks**

Compliance Level	n	(%)
<b>Poor</b>	16	40
<b>Fair</b>	17	42.5
<b>High</b>	7	17.5
<b>Total</b>	40	100

Based on Table 2 shows that the level of compliance of respondents in carrying out blood pressure checks is highest in the moderate compliance level category, namely 17 (42.5%) elderly people, and second place, namely 16 (40%) elderly people in the low compliance level category. Meanwhile, the fewest in the high level of compliance category were 7 (17.5%) elderly people. The difference between the medium level of compliance category and the low level of compliance category is only small so it can illustrate that the level of compliance in blood pressure checks is still deficient.

**Table 3. Level of compliance based on elderly characteristic categories**

Category	Compliance Level			n	(%)
	Poor	Fair	High		
<b>Age</b>					
<b>45-59</b>	6	7	4	17	42.5
<b>60-74</b>	7	9	2	18	45
<b>75-90</b>	2	1	1	4	10
<b>&gt;90</b>	1	-	-	1	2.5
<b>Total</b>	16	17	7	40	100
<b>(%)</b>	40	42.5	17.5	100	
<b>Gender</b>					
<b>Man</b>	7	4	2	13	32.5
<b>Women</b>	9	13	5	27	67.5
<b>Total</b>	16	17	7	40	100
<b>(%)</b>	40	42.5	17.5	100	
<b>Long-suffering from hypertension</b>					
<b>&lt;6 month</b>	1	2	5	8	20
<b>&gt;6 month</b>	15	15	2	32	80
<b>Total</b>	16	17	7	40	100
<b>(%)</b>	40	42.5	17.5	100	

Based on table 3, shows that the level of compliance based on age categories in the medium and low levels of compliance for those aged 60-74 is 17 (42.5%) for seniors and for those aged 45-59 is 16 (40%) and as you get older the level of compliance becomes less. The gender category shows the same thing, showing medium and low levels of compliance with almost the same difference. Meanwhile, the category based on the duration of hypertension sufferers shows that <6 months are more compliant compared to >6 months hypertension sufferers who tend to be non-compliant in carrying out blood pressure checks.

## DISCUSSION

The results of the research show that the level of compliance of elderly people with hypertension in carrying out routine blood pressure checks is still relatively poor or low. There are still many elderly people with hypertension who do not comply with routine blood pressure checks due to several factors. One of the factors is that the elderly carry out blood pressure checks when they only experience symptoms and feel unwell so the elderly feel fine and do not carry out blood pressure checks.

Elderly in the age and gender categories showed a lower level of compliance and non-compliance with examinations occurred as the age increased, the level of compliance became lower. It is possible that this could happen because as you get older or older, your memory decreases. Meanwhile, for gender, the level of compliance is high in elderly women and men, it is lower. Most elderly female respondents are housewives and do not have work outside the home so they can pay more attention to controlling the illnesses they experience. This is what Cho Su-jin and Jin hyun (2014) stated in their research results that someone who has a job can significantly influence unconsciousness and non-compliance in having blood pressure checks and going to health service facilities.

Elderly in the category of low level of compliance in the elderly who suffered from hypertension <6 months and elderly respondents who suffered from hypertension >6 months had a higher level of compliance. Elderly people who have just experienced hypertension relatively tend to care and pay attention to what they are suffering from and experiencing, the symptoms they experience may be still disturbing and require them to always carry out routine care such as blood pressure checks and routine medication to treat hypertension. In contrast to elderly people who suffer from hypertension for >6 months, many do not carry out blood pressure checks because they feel that their symptoms have improved and tend to decrease or are no longer present or asymptomatic. So he felt that the hypertension he was suffering from was not dangerous and had been cured. Supported by research by Ayuhecacia, Khairah and Feteriyani (2018), most people who have just contracted



hypertension will tend to be more compliant and relatively more attentive to the disease they are experiencing.

Compliance with blood pressure checks is important because it is one way to maximize the maintenance and treatment of hypertension. Hypertension is categorised as a silent disease because sufferers will not know about it before having their blood pressure checked first (Purnomo, 2009). Successfully treating hypertension cases will not reach optimal levels if the level of public awareness is still very low. By checking your blood pressure regularly, you can control your hypertension so you can return your blood pressure to normal again.

Non-compliance is a factor that can influence failure in hypertension treatment and therapy. There is a perception regarding hypertension that it is a disease that usually occurs in older people, so it is not uncommon for people to ignore hypertension and think that hypertension is a disease of the elderly. According to Idrus (2021), an important factor in the success of hypertension treatment and therapy is compliance. This is because compliance in carrying out blood pressure checks can control blood pressure in hypertension sufferers. Other factors that can influence compliance are the economy and education as well as low social support.

The level of compliance of elderly people with hypertension in Semangkak village is still in the medium and low categories. This is influenced by age, gender, and length of time experiencing hypertension and several other factors can influence compliance, namely education or knowledge. The average knowledge of the community in Semangkak village is still quite low regarding prevention or prevention of hypertension. The public still lacks knowledge regarding preventive and curative measures regarding hypertension. Many people still think that hypertension is a common disease in the elderly and will heal on its own. After the Covid-19 outbreak, people are afraid, especially people who have hypertension. In the village of Semangkak, many cases of COVID-19 have been affected, most of those affected by COVID-19 have hypertension and are elderly. Many factors cannot be taken into account in maintaining and treating cases of hypertension in the elderly.

## CONCLUSION

Based on the results of research conducted in Semangkak village, Klaten district, it shows that the level of compliance of elderly people with hypertension in carrying out blood pressure checks is on average in the fair and poor categories. The level of compliance needs to be increased further with support from all parties such as family and local health workers. can rely on posyandu cadres to carry out routine checks.

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